



*Clean Cities Workshop*  
*Mexico City, Mexico*  
*November 6/7, 2003*

**Celebrating 45 Years**



**Economics**

**Air Pollution**

**Energy Security**



## Economics

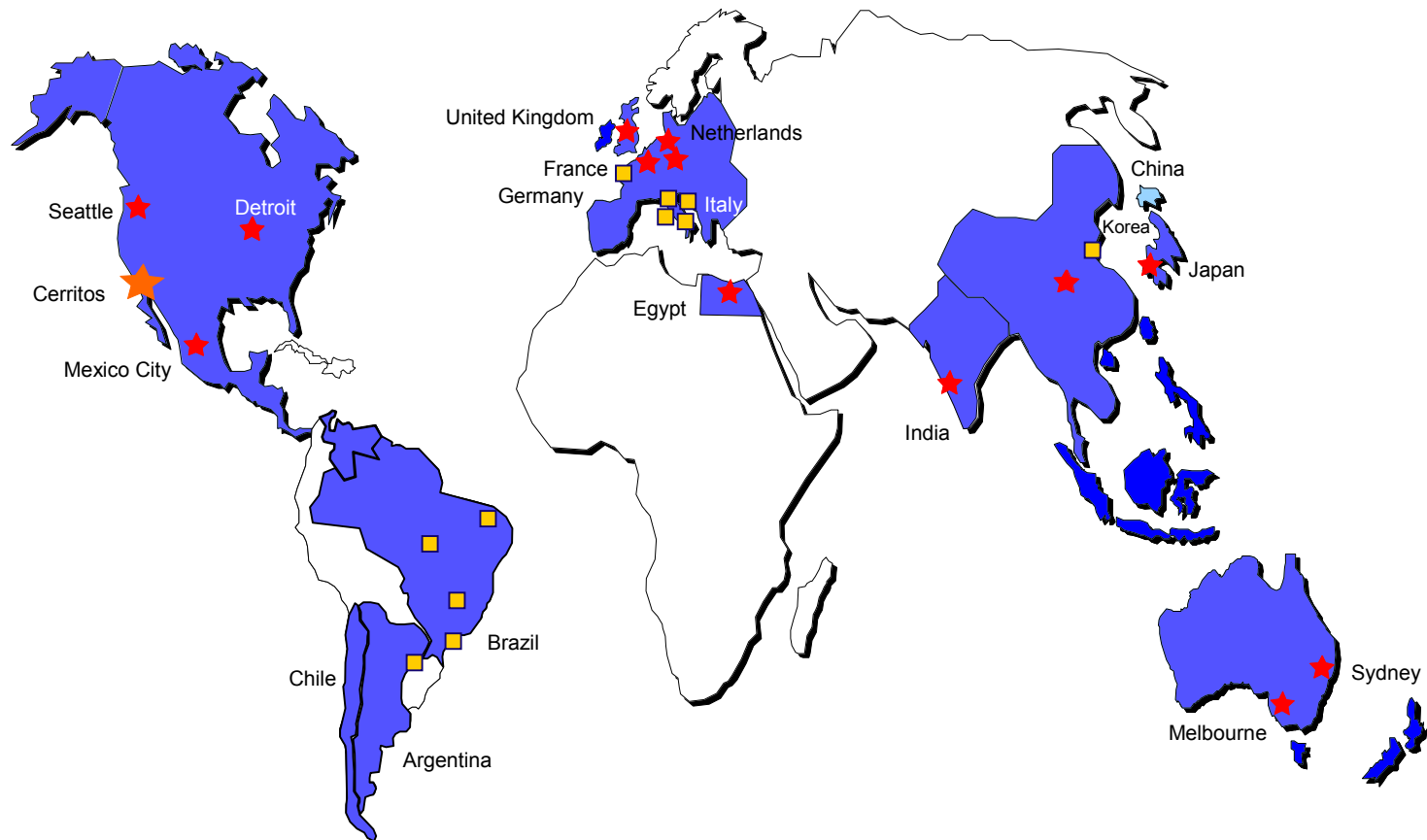
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Russia

## Air Pollution

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Chile

## Energy Security

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Malaysia  
Pakistan  
Turkey  
United Kingdom  
Poland  
  
Venezuela  
Russia



**25 strategically located facilities**  
**520 employees**  
**600+ distributor outlets**

# *Global Auto LP Gas Growth*

- ✓ Auto LP Gas is a proven and growing alternative transportation fuel with many success stories.
- ✓ Auto LP Gas is the leading alternative transportation fuel with approx. nine million vehicles operating worldwide
- ✓ Of these, over 700,000 vehicles are in Mexico
- ✓ A large number of these vehicles are used in fleets:
  - ✓ Heavy duty trucks, Buses, Taxis, Police Cars, and Delivery Vehicles.

# *Why Fleets Convert to Auto LP Gas?*

- ✓ Fuel cost savings
- ✓ Environmental benefits/government incentive
- ✓ Vehicle range is comparable to gasoline
- ✓ Lower cost and simple maintenance
- ✓ Reliable technology, horsepower & torque capacity
- ✓ Quick and easy refuelling



*Background*

# *What works...*

Where Auto LP gas is growing successfully, the following factors are typically present:

- ✓ Quality OEM and aftermarket LP Gas vehicle and service infrastructure is developed and supported by industry
- ✓ Fuel cost savings are realized on a consistent basis by the end user
- ✓ Government incentives are in place that support the use of LP Gas and regulations ensure quality conversions and products are sold
- ✓ Technology and fuel providers work together with government to ensure stakeholder needs are met and the customer is delighted...

# *What Doesn't Work...*

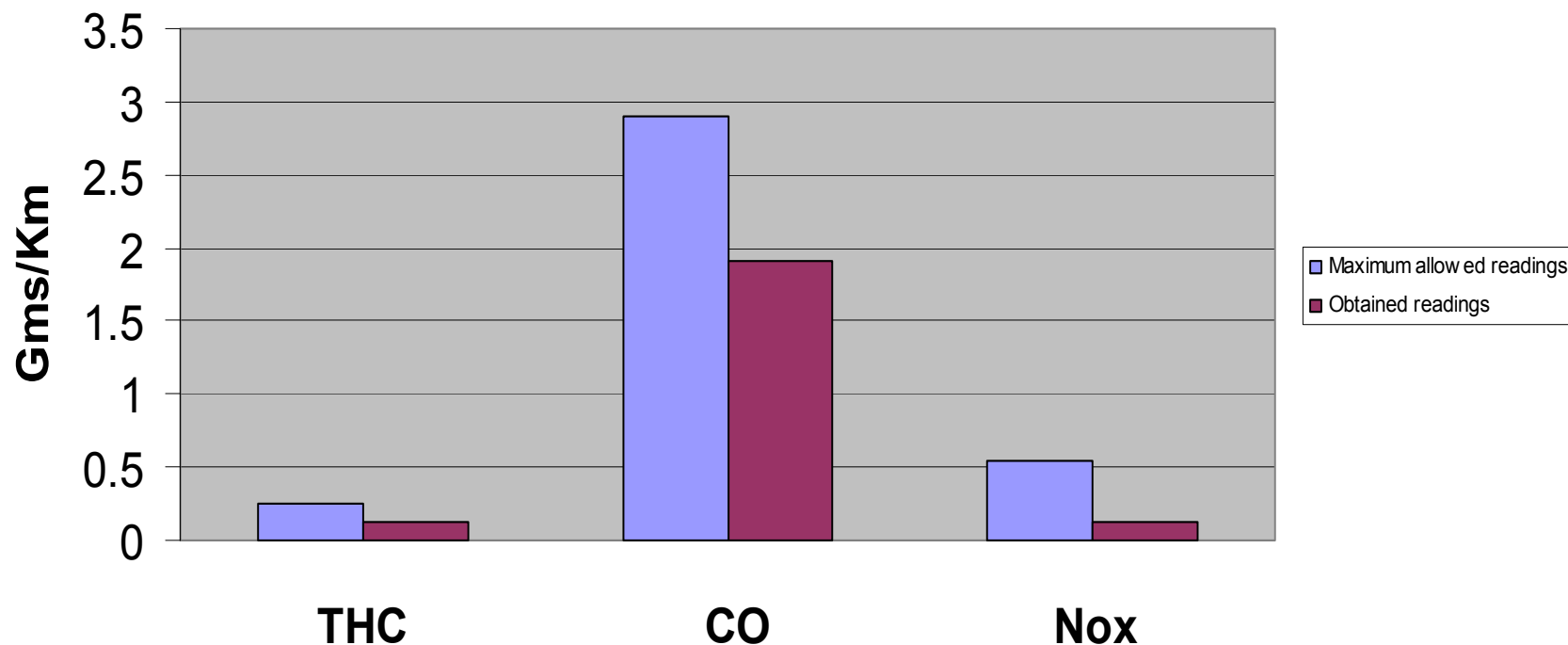
Sustainable Auto LP Gas vehicle growth is typically not possible if:

- Poor quality and inferior aftermarket vehicle conversions
- Lack of OEM vehicle development and marketing programs
- Lack of refuelling & maintenance infrastructure
- Lack of Government regulatory and incentive programs
- to support the paradigm shift to a cleaner fuels
- Consistent LP Gas company support is not present

# *Auto LP Gas is a proven clean transportation fuel....*

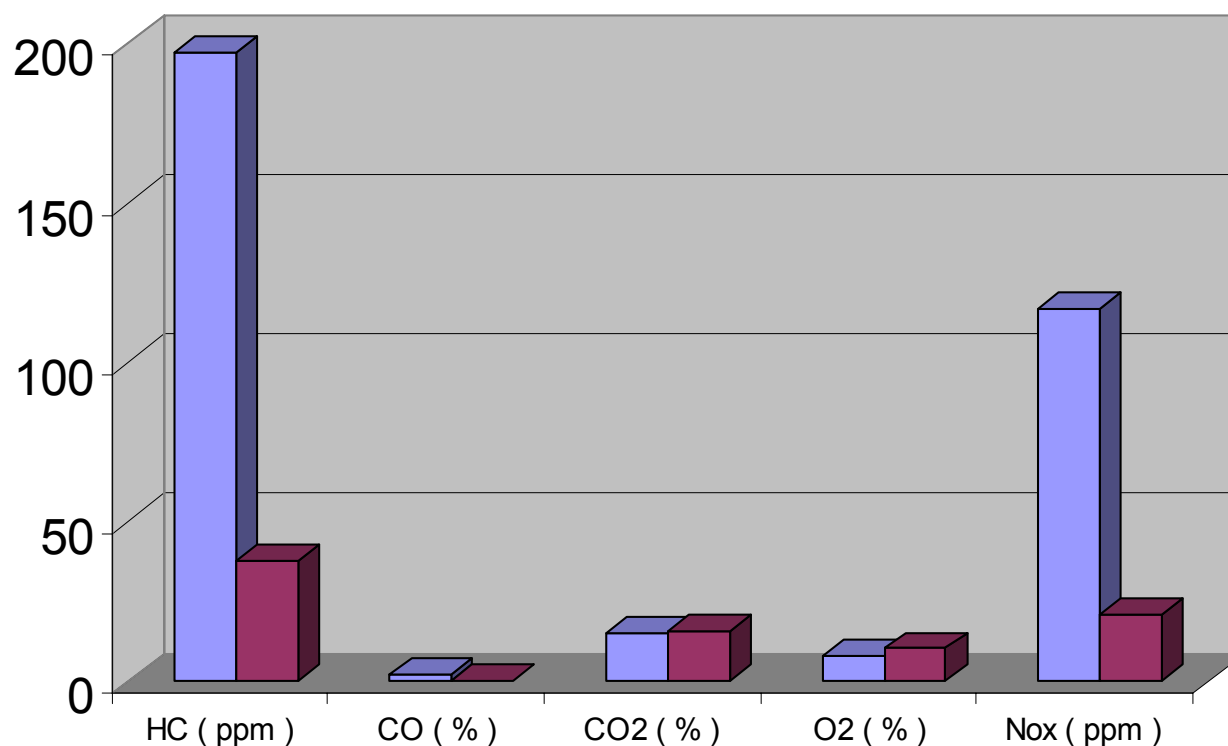


Test performed at  
Instituto Mexicano del Petroleo  
( Test type : EPA75 )



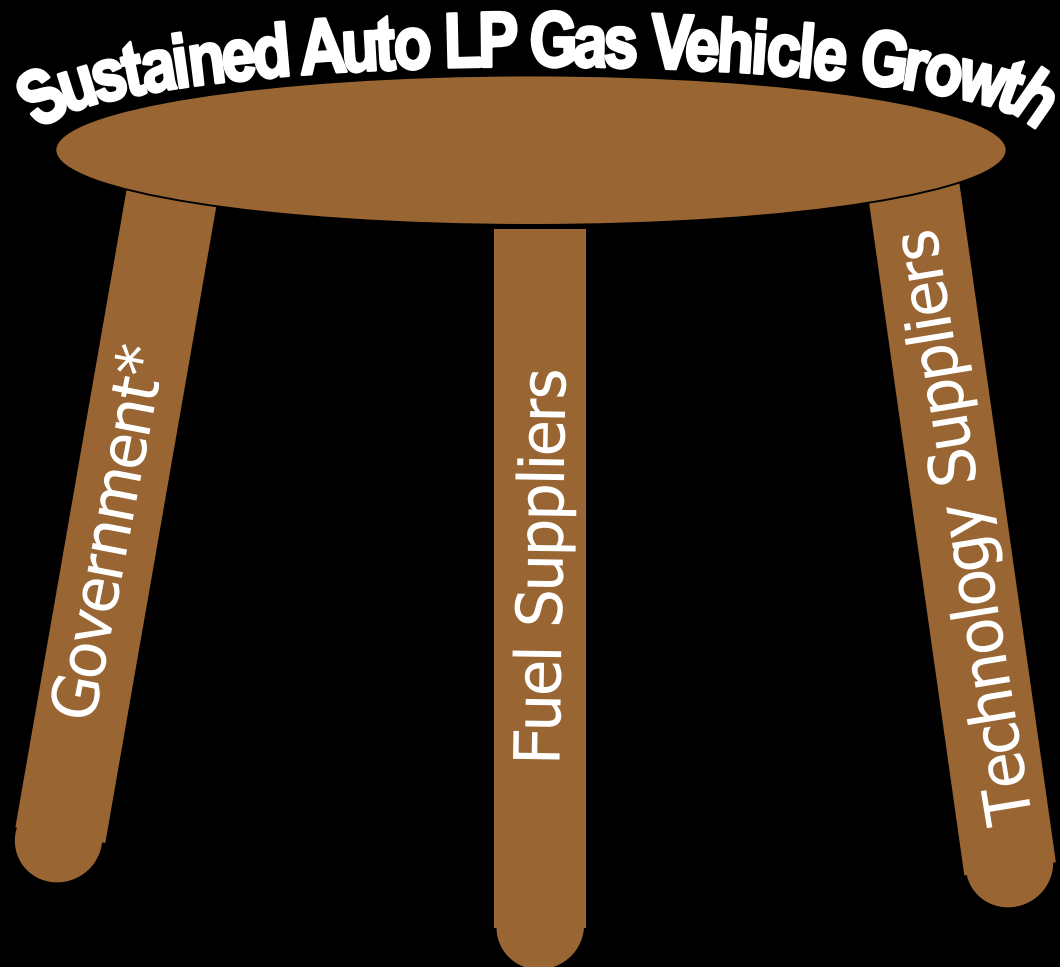
*The technology selection and installation must be performed correctly...*

## Emissions comparison between Correct & Incorrect Conversion System



■ Incorrect System  
■ Correct System

# *Success Through Teamwork*



\*In the case of Mexico, includes PEMEX

*Proper Execution*

# *Success Through Teamwork*



Government

- ✓ Continued legislation and incentives that support the use of Clean Auto LP Gas as an alternate fuel
- ✓ Implement and enforce Safety, Technology & Emission standards that ensure benefits are realized
- ✓ Preventive maintenance mandates & inspections
- ✓ Support new technology development programs

**BENEFIT:** Lower emissions inventory, increased energy security & jobs

*Proper Execution*

# *Success Through Teamwork*

## Fuel Suppliers

- ✓ Support only authorized/certified aftermarket conversion centers and technology
- ✓ Support OEM authorized vehicle development programs
- ✓ Install conveniently located dispensers metering quality fuel
- ✓ Invest in new technology development to keep pace with gasoline/diesel



**BENEFIT: Sustainable growth market, increased volume and profits**

*Proper Execution*

# *Success Through Teamwork*



- ✓ Development of emission certified conversion systems for the OEM and Aftermarket
- ✓ Development and training of professional authorized Conversion & Service Centers for the OEM & Aftermarket
- ✓ Ensure that closed loop fuel systems are installed and validated
- ✓ New technology development in partnership with industry

Technology Suppliers

**BENEFIT:** Sustainable growth market, increased volume and profits

*Proper Execution*

# *Success Through Teamwork*

Working together, all three stakeholder groups can develop a successful Auto LP Gas program that ensures:

- ✓ **Delighted customers** > seeing returns on their investment in auto LP Gas
- ✓ **Supportive government** > realizing consistent emission reductions and energy security benefits
- ✓ **OEM Interest** > seeing a positive image and successful retrofit market and a product worthy of their investment
- ✓ **Sustainable Market** > seen by fuel and technology providers
- ✓ Industry reinvestment towards technology and market enhancement



**BENEFIT: Everyone wins**

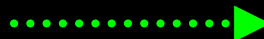
*Proper Execution*



# State of Mexico Program

## Government Objective:

- Reduce emissions by 40%
- Implement and manage a program through the PTP\*
- Optimize service and safety for travelers using the PTP system



## Historic AutoGas challenges:

- Emission problem
- Poor Conversion Quality
- Inconsistent Stakeholder support

Partnership ensues to develop the model for successful AutoGas in the state Taxi Fleet

Government

Aftermarket Conversion



OEM Vehicles

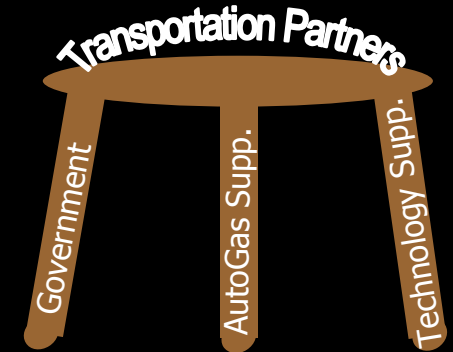
\*Public Transportation People

Case Study



# *State of Mexico Program*

## *How is this accomplished...*



- Governmental Agencies
  - Transportation Administration
  - Department of Ecology/ Environment Administration
- AutoGas Suppliers
  - Grupo Zaragosa, Grupo Soni, Grupo Niento
- Technology Suppliers
  - Authorized Conversion shops – IMPCO
- Transportation Partners
  - Taxi's/Buses



# State of Mexico Program

Government

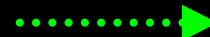
*Aftermarket  
Conversion*



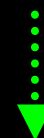
**Incentives: Details available  
Oct/ Dec 2003 90days**

## **Program:**

- Installation guidelines
- Safety requirements
- Emissions control
- Labeling
- Performance requirements



*OEM Vehicles*



**Incentives: Details available  
Oct/ Dec 2003 90days**

***PTP***

## **Purchases from either:**

- Authorized conversion center
- Authorized OEM center

## ***Enforcement***

- PTP gets checked yearly by governmental transportation Department
- Yearly emissions testing required by environmental branch of government
- Conversion entities communicate with transportation Department
- Governmental supervisors (patrol) – spot check documentation, etc.



# State of Mexico Program

**PTP**

## Short-term

- Monetary savings
  - \* Fuel, Tax exemption, Yearly registration
- Establish credit for vehicle purchase

## Long-term

- Residence purchase

# Who WINS?

Government

## Government

- Reduction of emissions
- Manage and enforce clean air program through PTP
- Gaining residence loyalty
  - Increase use of transportation.

Fuel Suppliers

## Auto LP Gas Supplier

- Increase business
- Sustainable Market

Technology Suppliers

## Technology Suppliers

- Increase business
- Sustainable Market

# *To remember...*

*Auto LP Gas is a proven alternative to gasoline and diesel fuels  
and it is a good fuel for Mexico*

- *Benefits*

- *Cleaner air*
- *Economic incentives*
- *Energy Security*

- *Priority on execution*

- *Templates for success exist*
  - *Safety, Technology, Emissions*
- *Government/industry partnerships*

- *State of Mexico is the beginning*

- *This model can be replicated in other states and cities*





**Celebrating 45 Years**

***THANK YOU !***



**The Future Is Clear<sup>©</sup>**

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